

679V_k

GACATTGTGATGTCACAATCTCCATCTCCCTGGCTGTGTACCAGGAGAGAAAGTCACTATGACCTGCAAATCCAGTCAGAGTCTGTTC 90
D I V M S Q S P S S L A V S P G E K V T M T C K S S Q S L F 30

AACAGTAGAACCCGAAAGAACTACTTGGGTTGGTACCAGAGAAACCAGGGCAGTCTCCTAAACTTCTGATCTACTGGGCATCTACTCGG 180
N S R T R K N Y L G W Y Q Q K P G Q S P K L L I Y W A S T R
CDR1 CDR2 60

GAATCTGGGGTCCCTGATCGCTTCACAGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAACAGTGTGCAGTCTGAAGACCTGGCA 270
E S G V P D R F T G S G S G T D F T L T I N S V Q S E D L A 90

GTTTATTGCACTCAAGTTTATTATCTGTGCACGTTCCGGTGCTGGGACCAAGCTGGAGCTGAAACGG
V Y Y C T Q V Y Y L C T F G A G T K L E L K R
CDR3 339
113

Figure 1.

PRODUCTION AND USE OF NOVEL PEPTIDE-BASED
AGENTS FOR USE WITH BI-SPECIFIC ANTIBODIES
Inventor: HANSEN et al.
CIP of U.S Serial No. 09/337,756
Docket No. 018733/1015
Attorney: Bernhard D. Saxe
Phone: (202) 672-5427
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679VH

GTCCAAGTGCAGAGTCAGGGGAGACTTAGTGAAGCCTGGAGGTCCTGAAACTCTCCTGTGCAGCCTCTGGATTCACTTTTCAGTATT 90
V Q L Q E S G G D L V K P G G S L K L S C A A S G F T F S I 30

TACACCATGTCTTGGCTTCGCCAGACTCCGGAAAAGAGGCTGGAGTGGTCCGAACCCCTGAGTGGTGATGGTGATGACATCTACTATCCA 180
Y T M S W L R Q T P E K R L E W V A T L S G D G D I Y Y P 60
CDR1 CDR2

GACAGTGTGAAGGTCGATTCACCATCTCCAGAGACAATGCCAAGAACCACTATATCTGCAAAATGAACAGTCTAAGGCTGCGGACACG 270
D S V K G R F T I S R D N A K N N L Y L Q M N S L R S A D T 90

GCCTTGTAATCTGTGCAAGGTCGACTTGGGACTGGGACTTCGATGTCTGGGGCCAGGACCCAGGTCCTCCGTCTCCTCA 354
A L Y Y C A R V R L G D W D F D V W G P G T T V S V S S 118
CDR3

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Figure 2.

679scFv

GACATTGTGATGTCACAATCTCCATCCCTCCCTGGCTGTGTACCAGGAGAGAAAGGTCACTATGACCTGCAAAATCCAGTCAGAGTCTGTTC 90
 D I V M S Q S P S S L A V S P G E K V T M T C K S S Q S L F 30

 AACAGTAGAACCCGAAAGAACTACTTGGTTGGTACCAGCAGAAACAGGGCAGTCTCCTAAACTTCTGATCTACTGGGCATCTACTCGG 180
 N S R T R K N Y L G W Y Q Q K P G Q S P K L L I Y W A S T R
 Vk CDR1 Vk CDR2
 GAATCTGGGTCCTGATCGCTTCACAGGCAGTGGATCTGGGACAGATTTCACCTCAACAGTGTGCAGTCTGAAGACCTGGCA 270
 E S G V P D R F T G S G S G T D F T L T I N S V Q S E D L A 90
 GTTTATTACTGCACTCAAGTTTATTATCTGTGCACGTTCCGTTGGTGGACCAAGCTGGAGCTGAAACGAGGAGTGGCGGATCAGGAGGC 360
 V Y Y C T Q V Y Y L C T F G A G T K L E L K R G G G S G G Linker 120
Vk CDR3
 GGAGGCTCCGGAGGGGTGGGAGTGAGGTGCAGCTGCAGGAGTCTGGGGGAGACTTAGTGAAGCCTGGAGGGTCCCTGAAACTCTCCTGT 450
 G G S G G G G S E V Q L Q E S G G D L V K P G G S L K L S C 150
Linker
 GCAGCCTCTGGATTCACTTTCAGTATTACACCATGTCTTGGCTTCGCCAGACTCCGGAAAGAGGCTGGAGTGGTTCGCAACCCCTGAGT 540
 A A S G F T F S I Y T M S VH CDR1 V A T L S 180
 GGTGATGGTGATGACATCTACTATCCAGACAGTGTGAAGGTCGATTACCATCTCCAGACACAATGCCAAGAACACCTATATCTGCAA 630
 G D G D D I Y Y P D S V K G VH CDR2 L Y L Q 210
 ATGAACAGTCTAAGGTCTGCGGACACGGCCTTGTTACTGTGCAAGGGTGGGACTTGGGACTGGGACTTCGATGTCTGGGGCCCAAGG 720
 M N S L R S A D T A L Y Y C A R V R L G D W D F D V W G Q G 240
VH CDR3
 ACCACGGTCACCGTCTCCTCA 741
 T T V T V S S 247

Figure 3.

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GCTGTTTIGATGACCCAACTCCACTCTCCCTGCCTGTCAGTCTTGGAGATCAAGCCTCCATCTCTTGCAGATCTAGTCAGAGCATTTGTC 90
A V L M T Q T P L S L P V S L G D Q A S I S C R S S Q S I V 30

CATAGTAATGGCAACACCTATTAGAAATGGTACCTGCAGAAACAGGCCAGTCTCCAAAGCTCCTGATCTACAAAGTTTCCAACCCGATTT 180
H S N G N T Y L E W Y L Q K P G Q S P K L L I Y K V S N R F 60
CDR2

TCTGGGGTCCCAGACAGGTTTCAGTGGCCTGGATCAGGGACAGAGTTTCACAGTCAGGATCAGCAGAGTGGAGCGCTGAGGATCTGGGACTT 270
S G V P D R F S G T G S G T D F T V R I S R V E A E D L G L 90

TATTACTGCTTTCAAGGTTACAGTGTTCGGTACACGTTCCGAGGGGGACCAAGCTGGAAATAAAA
Y Y C F Q G S R V P Y T F G G G T K L E I K
CDR3

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Figure 4.

Mu9VH

GTGAGCTGCAGGAGTCAGGACCTGAGCTGGTGAAGCCCTGGGGCTTCAGTGAAGATGTCTGCAGGGCTTCTGGATACACCTTCACCTGAG 90
V Q L Q E S G P E L V K P G A S V K M S C R A S G Y T F T E 30

TATGTTATTACCTGGGTAACACAGAGAACTGGACAGGGCCCTTGAGTGGATTGGAGAGATTTATCCTGGAAGTGGTAGTACTTCCTACAAT 180
Y V I T W V K Q R T G G Q G L E W I G E I Y P G S G S T S Y N 60
CDR1

GAAAAGTTCAAGGGCAAGGCCACACTGACTGCAGACAAATCCTCCAACACAGCCCTACATGCACCTCAGCAGCCCTGACATCTGAGGACTCT 240
E K F K G K A T L T A D K S S N T A Y M H L S S L T S E D S 90

GCGGTCTATTCTGTACAAGAGAGGATCTTGGGGCCAAAGGACTCTGGTCACTGTCTCTTCA 333
A V Y F C T R E D L G G G Q G T L V T V S S 111
CDR3

Figure 5.

hMu9Vk

GATATCCAGCTGACCCCAATCCCCAGGCACCCCTGTCCCTCAGTCCTGGAGAGCGGACCACTCTGTCTTGCAAGTCTAGTCAGAGCATTTGTG 90
 D I Q L T Q S P G T L S L S P G E R A T L S C R S S Q S I V 30

CATAGTAATGGCAACACACCTATTTAGATGGTACCTGCAGAAACCAGGCCAGGCTCCAAGGCTCCTGATCTACAAAGTTTCCAACCGATT 180
H S N G N T Y L E W Y L Q K P G Q A P R L L I Y K V S N R F 60
 CDR2

TCCGGAGTCCCAGACAGGTTTCAGTGGCTCTGGATCAGGGACAGATTTCACACTTACTATCAGCAGACTGGAGCCTGAGGATTTTGCTGTG 270
S G V P D R F S G S G T D F T L T I S R L E P E D F A V 90

TATTACTGCTTTCAAGGTTTCAGTGTTCCTCGTACACGTTCCGAGGGGGGACCAAGGTGGAGATC
 Y Y C F Q G S R V P Y T F G G G T K V E I
 CDR3

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Figure 6.

hMu9VH

GTGCAGCTGCAGCAGTCAGGAGCTGAGGTGAAAAAGCCCTGGGAGCTCAGTGAAGGTCTCCTGCAAGGCTTCTGGATACACCTTCACTGAG 90
V Q L Q Q S G A E V K K P G S S V K V S C K A S G Y T F T E 30

TATGTTATTACCTGGGTAACACAGAGACCTGGACAGGGTCTAGAGTGGATTGGAGAGATTTATCCTGGAAGTGGTAGTACTTCCTACAAT 180
Y V I T W V K Q R P G Q G L E W I G E I Y P G S G S T S Y N 60
CDR1 CDR2

GAAGAAGTTCAAGGGCAAGGCCACAATCACTGCTGACAAATCCACTAACACAGCCTACATGGAGCTCAGCAGCCTGAGATCTGAGGACACT 270
E K F K G K A T I T A D K S T N T A Y M E L S S L R S E D T 90

GGGTTCTATTCTGTACAAGAGAGGATCTTGGGGGCCAAGGGTCTCTGGTCACCGTCTCTTCA 333
A F Y F C T R E D L G G G Q G S L V T V S S 111
CDR3

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Figure 7.